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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,623	04/14/2004	Lennart Stridsberg	1291-0146PUS2	4653
2292	7590	05/25/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			FISCHMANN, BRYAN R	
			ART UNIT	PAPER NUMBER

3618

DATE MAILED: 05/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/823,623	Applicant(s) STRIDSBURG, LENNART	
	Examiner Bryan Fischmann	Art Unit 3618	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 09/557,902.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413) _____               |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>4-14-04</u>   | 6) <input type="checkbox"/> Other: _____                                    |

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***Acknowledgements***

1. The election and amendment filed 03-17-2005 have been entered.

***Change of Examiner***

2. The Instant Application has been transferred from the docket of Ha Ho, Art Unit 3681, to the docket of Bryan Fischmann, Art Unit 3618, as the claimed invention is drawn toward airflow to an engine that is diverted to another use, such as cooling a motor/generator of a hybrid drive vehicle, which is classified in Class 180, Subclass 68.2, and which is examined by Art Unit 3618.

***Election/Restriction***

3. The former examiner required a restriction between two inventions, the first being a power train of a vehicle, claims 1-4 and the second, a method of cooling a vehicle, claim 5 on 12-17-2004.

In the election dated 03-17-2005, the Applicant elected, with traverse, to prosecute the first invention, original claims 1-4 and newly added claims 6-10.

Regarding the reasons for traversing the restriction in the election, these reasons are considered moot, as the Applicant canceled the claim drawn to the non-elected invention, namely claim 5.

Accordingly, the restriction requirement is made FINAL.

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4. The Applicant did not appear to state in the election whether newly added claims 11-14 read on the elected invention, as required. However, to advance prosecution, the Examiner will examine all newly submitted claims.

### ***Specification***

5. The abstract of the disclosure is objected to because of the following:

A) This Application is a divisional application directed toward the motor air cooling system of Figure 6. Accordingly, Applicant might consider rewording the abstract, which makes no mention of the motor air cooling system.

6. The specification is objected to because of the following:

A) The first sentence of the specification does not indicate whether the international application which benefit is being claimed via the parent application, was published under PCT article 21(2) in English. See 37 CFR 1.78(a)(2) and Section 202.01 of the MPEP.

B) The following recited phrases are unclear, awkwardly worded, and/or grammatically incorrect:

Note: The specification is considered replete with instances of awkward and sometimes unclear wording. Therefore, the Examiner cannot guarantee the following is a comprehensive listing of all awkward and unclear wording. Applicant is advised to review the specification for awkward and unclear wording.

1) On page 7, it is believed that the drawing description for Figures 1-3b should be identified as prior art.

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2) Though perhaps not strictly objectionable, it is noted that the “delimiters” used in Table 1 on page 13 in the US are “periods” and not “commas”, as is believed to be the case in Europe.

3) It is considered unclear why a “question mark” appears in parenthesis in line 25 of page 14.

4) The subtitle “A detailed design example” that appears on line 29 of page 23 is considered to be awkward and unclear, and not consistent with the discussion of Figure 6 that follows.

5) The meaning of the abbreviation PTFE recited on lines 32 and 34 of page 24 is considered unclear.

C) The following inconsistencies in nomenclature were noted:

1) Line 17 of page 24 recites “pressure plate 612”. Lines 18, 19 and 22 of page 24 recites “member 612”. Line 20 of page 24 recites “plate 612”.

2) Line 1 of page 25 recites “ring 640”. Line 20 of page 25 recites “winding head 640”.

3) Line 4 of page 25 recites “cup spring 638”. Line 18 of page 25 recites “magnets 638”.

To avoid confusion to the reader, and to facilitate identifying components by nomenclature in the claims, it is requested Applicant use consistent nomenclature for the same reference number throughout the specification.

### ***Drawings***

7. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the air filter, structure within the air filter that allows diversion of air from the engine to the motor and structure that allows air to flow from the air filter to the motor as set forth in claims 1, 6 and 11 and the channels for receiving the filtered air as recited in claim 6 must be shown or the features canceled from the claims. No new matter should be entered.

8. Figures 1-3b should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Note that Figures 1-3b are discussed in the "Background" portion of the specification.

Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

9. Claims 1 and 10 are objected to because of the following:

A) Claim 1 recites "an energy storage".

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Though not strictly objectionable, it is believed that wording would be improved if the word "unit" or "device" were inserted after the word "storage" in the above recitation.

See also a similar objection in claim 10.

B) The recitation of "it" on line 3 of claim 10 is objected to, as it is not entirely clear what is being referred to by the recitation of "it".

C) Claim 10 recites "...the electric motor mechanically connected to the thermal engine or to said at least of one of the wheels...".

This recitation is objected to, as the recitation implies the motor may be mechanically disconnected from the engine. Since the motor is best understood to be the motor being cooled by air which passes adjacent magnet 604 and rotor 602, it is best understood this motor, which is the motor proximal the engine, is bolted to the engine output shaft 601, such that it cannot be mechanically disconnected from the engine, as the above claim 10 recitation implies.

### ***Claim Rejections - 35 USC § 101***

10. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

11. Claims 11-14 are rejected under 35 USC 101 due to the following:

Claim 11 positively recites "air..." in line 4. "Air" is non-statutory subject matter.

To overcome this rejection, the Applicant should only recite the term "air" clearly within functional language.

***Claim Rejections - 35 USC § 112***

12. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

13. Claims 1-4 and 6-14 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention.

Claim 1 recites "a powertrain of a vehicle...comprising...a thermal engine...an energy storage...an electric motor... wherein at least part of filtered air from an air filter of the thermal engine is made to pass in such a way that at least part of the electric motor will obtain cooling from the filtered air".

Written description for the above recitation is lacking due to the following:

A) The support for the above recitation is believed to come from the fourth paragraph of page 25 of the specification. This paragraph teaches that "engine input air", "air for the cooling of cooling oil or water", or "air for the cooling of battery cells" may be used to cool the motor.

However, note that in some cases, such as air to cool engine oil or battery cells, that it is not apparent that this air is "filtered" from an "air filter of the thermal engine".

B) In the case of "engine input air", there is no teaching of how part of the air is "diverted" within the air filter, or "downstream" of the air filter which then enters an

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“engine intake”, such as a fuel injector system, or carburetor and channeled to the air inlet 636 of the motor.

Due to this, the Applicant did not have possession of the claimed invention of invention 1.

See claims 6 and 11 for a similar rejection.

Note in contrast, that Takedomi, et al, US 2003/0226653, cited on form PTO 892 included with this Office Action, goes into much more detail as to how engine inlet air is used to cool a motor.

14. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

15. Claims 1-4 and 6-14 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant regard as his invention.

A) It is considered unclear how filtered engine air is made to cool the motor as set forth in claim 1 for reasons set forth in the 112 1<sup>st</sup> paragraph rejection of claim 1 above.

See also claims 6 and 11 for a similar rejection.

### ***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Yoshikawa, et al, Takedomi, et al, Gonzalez, EP 0337032 and JP 9-46984 – teaches air cooling of a vehicle drive motor

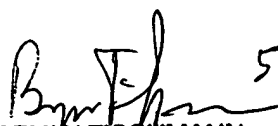
King, Matsuda, et al, Hasabe, et al, JP 10-266856 and JP 2004-76603 – teach vehicle cooling systems that include drive motor cooling

Stridsberg – “parent” patent by Applicant

17. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Bryan Fischmann whose telephone number is (571) 272-6694. The examiner can normally be reached on Monday through Friday from 8:30 to 5:00.

If attempts to reach the Examiner by telephone are unsuccessful, the examiner's supervisor, Chris Ellis, can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 5-22-5  
BRYAN FISCHMANN  
PRIMARY EXAMINER